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**YBB081Mu01 50μg**  
**Recombinant Heat Shock 70kDa Protein 1A (HSPA1A)**  
**Organism Species: Mus musculus (Mouse)**  
***Instruction manual***

**FOR IN VITRO USE AND RESEARCH USE ONLY**  
**NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES**

10th Edition (Revised in Jan, 2014)

**[ PROPERTIES ]**

**Residues: Met1~Asp641**

**Tags: N-terminal His-Tag**

**Accession: Q61696**

**Host: *E. coli***

**Subcellular Location: Cytoplasm.**

**Purity: >95%**

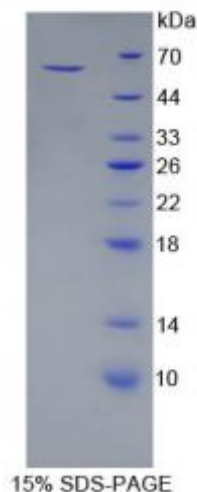
**Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).**

**Formulation: Supplied as lyophilized form in 10mM PBS, pH7.4, containing 1mM DTT, 5% trehalose, 0.01% sarcosyl and preservative.**

**Predicted isoelectric point: 5.7 Predicted**

**Molecular Mass: 71.6kDa**

**Accurate Molecular Mass: 60kDa as determined by SDS-PAGE reducing conditions. Applications: SDS-PAGE; WB; ELISA; IP.**



The possible reasons that the actual band size differs from the predicted are as follows:

**(May be suitable for use in other assays to be determined by the end user.)**

**Note:**

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.



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**5. Polymerization of the target protein: Dimerization, multimerization etc.**



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## **[ USAGE ]**

Reconstitute in sterile ddH<sub>2</sub>O.

## **[ STORAGE AND STABILITY ]**

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCES ]**

The sequence of the target protein is listed below.

MAKNTAIGID LGTTYSCVGV FQHGKVEIIA NDQGNRTTPS YVAFTDTERL IGDAAKNQVA  
LNPQNTVFDA KRLIGRKFGD AVVQSDMKHW PFQVVNDGDK PKVQVNYKGE SRSFFPEEIS  
SMVLTKMKEI AEAYLGHPVT NAVITVPAYF NDSQRQATKD AGVIAGLNVL RIINEPTAAA  
IAYGLDRTGK GERNVLIFDL GGGTFDVSIL TIDGIFEVK ATAGDTHLGG EDFDNRLVSH  
FVEEFKRKHK KDISQNKRAV RRLRTACERA KRTLSSSTQA SLEIDSLFEG IDFYTSITRA  
RFEELCSDLF RGTLEPVEKA LRDAKMDKAQ IHDLVLVGGS TRIPKVQKLL QDFFNGRDLN  
KSINPDEAVA YGAAVQAAIL MGDKSENVQD LLLLDVAPLS LGLETAGGVM TALIKRNSTI  
PTKQTQTFTT YSDNQPGVLI QVYEGERAMT RDNNLLGRFE LSGIPPAPRG VPQIEVTFDI  
DANGILNVT TDKSTGKANK ITITNDKGRL SKEEIERMVQ EAERYKAEDE VQRDRVAAKN  
ALESYAFNMK SAVEDEGLKG KLSEADKKKV LDKCQEVISW LDSNTLADKE EFVHKREELE  
RVCSPHISGL YQGAGAPGAG GFGAQAPKGA SGSGPTIEEV D

## **[ REFERENCES ]**

1. Perry M.D., *et al.* (1994) Gene 146:273-278.
2. Hampton C.R., *et al.* (2003) Am. J. Physiol. Heart Circ. Physiol. 285:H866-74.



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**3. Belter J.G., *et al.* (2004) J. Appl. Physiol. 96:1270-1276.**

**4. Hunt C.R., *et al.* (2004) Mol. Cell. Biol. 24:899-911.**